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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jeong-Hwan Lee

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EXAMINER

NGUYEN, LAUREN

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/541,897	Applicant(s) LEE ET AL.	
	Examiner LAUREN NGUYEN	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,6 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-6,8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/20/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of applicant's amendment filed on 05/20/2008.

Claims 2, 4, 7, and 11 were canceled. Thus, claims 1, 3, 5-6, 8-10 are pending for examination.

Response to Arguments

1. Applicant's arguments filed 05/20/2008 have been fully considered but they are not persuasive.
2. The applicant argues (see page 7) regarding the amended **claim 1** that Kashima (figure 8) fails to disclose or suggest the optical member having the structure recited in claims 1, 6, and 9. This is irrelevant and not persuasive. Applicant is to note that figure 8 was not mentioned in the Office Action dated 12/07/2007.
3. The applicant also argues (see page 8) that in the Sakuramoto reference, there is no teaching or suggestion that the optical film 1 and the optical part 3 would correspond to the light diffusion plate and the brightness enhancement sheet. This is not persuasive. Kashima teaches the back light assembly comprising the diffusion plate and the brightness enhancement sheet, except for an adhesive layer disposed between the two films. The examiner merely relies on Sakuramoto (in at least column 7, lines 32-34, column 8, lines 29-36, and column 9, lines 26-31, figure 3) for the teaching of an adhesive layer (2) disposed between the films. In addition, Sakuramoto further teaches that the films can be a prism sheet and the diffusing plate. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the layers of **Kashima** with the adhesive layer of **Sakuramoto et al.** because such modification would prevent the films from shifting and foreign substances from coming into each interface (see at least column 7, lines 55-60).

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4. The applicant argues (see page 8) that there is nowhere in Sakuramoto's disclosure suggesting that wrinkle-avoidance of brightness enhancement sheet by laminating it to a light diffusion layer was contemplated, since its motivation is different from the applicant's. This is not persuasive. "The fact that the applicant uses that method for a different purpose does not alter the conclusion that its use in a prior art device would be prima facie obvious from the purpose disclosed in the reference." In re Lintner, 173 USQP 560. The claim language therefore does not patentably distinguish over the applied reference[s], and the previous rejections are maintained.

Information Disclosure Statement

5. The information disclosure statement (IDS) submitted was filed after the mailing date of the instant application on 05/20/2008. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1, 3, 5-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Obata (US 2002/0149943)** in view of **Sakuramoto et al. (US 6,369,945)**.

8. With respect to **claim 1**, **Obata** (figures 7-9) discloses a backlight assembly comprising: a plurality of lamps generating light (5), the lamps arranged parallel to one another; and an optical member disposed over the plurality of lamps, the optical member comprising: a light diffusion plate (6; see at least paragraph 0007) diffusing the light generated from the lamps; and a brightness

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enhancement sheet (8) disposed on the diffusion plate, the brightness enhancement sheet condensing the light through the diffusion plate. **Obata** does not disclose an adhesive layer disposed between the light diffusion plate and the brightness enhancement sheet, the adhesive layer laminating the brightness enhancement sheet with the light diffusion plate controlling part.

However, **Sakuramoto et al.**, in at least column 7, lines 32-34, column 8, lines 29-36, and column 9, lines 26-31, figure 3, discloses an adhesive layer (1-3) disposed between the two optical films, the adhesive layer laminating the first with the second optical films. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the adhesive layer as taught by **Sakuramoto et al.** because such modification would prevent the films from shifting and foreign substances from coming into each interface (see at least column 7, lines 55-60). Therefore, **Obata in view of Sakuramoto et al.** discloses an adhesive layer disposed between the light diffusing plate and the brightness enhancement sheet so as to laminate the brightness enhancement sheet with the light diffusion plate.

9. With respect to **claim 3**, **Sakuramoto et al.** discloses the adhesive layer comprises an acryl resin (see at least column 10, lines 45-48).

10. With respect to **claim 5**, **Obata** (figures 7-9) discloses the brightness enhancement sheet comprises a prism shape including a rounded ridge (figure 9b).

11. With respect to **claim 6**, **Obata** (figures 7-9) discloses an LCD apparatus comprising: an LCD panel (1) including an upper substrate, a lower substrate and a liquid crystal layer interposed between the upper and lower substrates; and a backlight assembly including a plurality of lamps generating light (5), the lamps disposed under the LCD panel and arranged parallel to one another; and an optical member disposed over the plurality of lamps, the optical member comprising: a light

diffusion plate (6; see at least paragraph 0007) diffusing the light generated from the light generating part; a brightness enhancement sheet (8) disposed on the diffusion plate, the brightness enhancement sheet condensing the light passing through the diffusion plate. **Obata** does not disclose an adhesive layer disposed between the light diffusion plate and the brightness enhancement sheet, the adhesive layer laminating the brightness enhancement sheet with the light diffusion plate controlling part. However, **Sakuramoto et al.**, in at least column 7, lines 32-34, column 8, lines 29-36, and column 9, lines 26-31, figure 3, discloses an adhesive layer (1-3) disposed between the two optical films, the adhesive layer laminating the first with the second optical films. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the adhesive layer as taught by **Sakuramoto et al.** because such modification would prevent the films from shifting and foreign substances from coming into each interface (see at least column 7, lines 55-60). Therefore, **Obata in view of Sakuramoto et al.** discloses an adhesive layer disposed between the light diffusing plate and the brightness enhancement sheet so as to laminate the brightness enhancement sheet with the light diffusion plate.

12. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Obata** in view of **Sakuramoto et al.**, further in view of **Kaneko (US 6,744,480)**.

13. With respect to **claim 8**, **Obata** (figures 7-9) in view of **Sakuramoto et al.** discloses a polarizer disposed under the lower substrate to transmit a portion of the light generated from the backlight assembly (see at least paragraph 0022). **Obata** in view of **Sakuramoto et al.** does not disclose a reflective polarizing film and the reflective polarizing film being laminated with the polarizer. However, **Kaneko** (in at least column 8, lines 55-62; figures 3-5) discloses a reflective polarizing film (10) integrally formed under the polarizer (12) to transmit a portion of the light and

to reflect a remaining portion of the light, the reflective polarizing film being laminated with the polarizer (10, 12, 19). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the liquid crystal display of **Obata** in view of **Sakuramoto et al.** with the reflective polarizer of **Kuroiwa et al.** because such modification would effectively prevent the reversion of the same bright/dark states between the reflective display mode and the transmissive display mode and easily attach the polarizers together.

14. **Claims 9 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Obata** in view of **Sakuramoto et al.**, **Kaneko, Ohkawa (US 6,339,458)**, further in view of **Kuroiwa et al. (US 2001/0035928)**.

15. With respect to **claim 9**, **Obata** (figures 7-9) discloses an LCD apparatus (1) comprising: an LCD panel including an upper polarizer having a first polarizing axis, an upper substrate disposed under the upper polarizer, a lower substrate, a liquid crystal layer interposed between the upper and lower substrate, a lower polarizer (9B) disposed under the lower substrate to have a second polarizing axis (see at least paragraph 0022); and a backlight assembly including a plurality of lamps (5) disposed under the LCD panel to generate light for the LCD panel, a light diffusing plate (6) diffusing the light generated from the lamp, and a brightness enhancement sheet (8) integrally formed with the light diffusion plate so as to condense the diffused light, and.

Obata does not disclose the remaining limitations of **claim 9**. **Sakuramoto et al.**, in at least column 7, lines 32-34, column 8, lines 29-36, and column 9, lines 26-31, figure 3, discloses an adhesive layer (1-3) disposed between the two optical films, the adhesive layer laminating the first with the second optical films. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the adhesive layer as taught by **Sakuramoto et al.** because such

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modification would prevent the films from shifting and foreign substances from coming into each interface (see at least column 7, lines 55-60). Therefore, **Obata in view of Sakuramoto et al.** discloses a first adhesive layer disposed between the light diffusing plate and the brightness enhancement sheet so as to laminate the brightness enhancement sheet with the light diffusion plate

Kaneko (in at least column 8, lines 55-62; figures 3-5) discloses a reflective polarizing film (10) disposed under the lower polarizer (12), the reflective polarizing film being laminated with the polarizer (10, 12, 19) and a reflecting plate disposed under the lamp so as to reflect the light generated from the lamps into the light diffusion plate and a reflecting plate (7) disposed under the lamp. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the LCD as taught by **Kuroiwa et al.** because such modification would enhance the brightness of the display, effectively prevent the reversion of the same bright/dark states between the reflective display mode and the transmissive display mode and easily attach the polarizers together.

Ohkawa in at least column 4, line 53-55, figures 1 and 2, discloses a protection sheet disposed on the brightness enhancement sheet (5) so as to prevent the breakage of the LCD panel. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the LCD as taught by **Ohkawa** because such modification would prevent the prism sheet from being damage and make the reflective appearance of edges or the like less conspicuous (see at least column 4, lines 55-59).

Kuroiwa (in at least paragraph 0008; figures 1-3) discloses a second polarizing axis that is substantially perpendicular to the first polarizing axis (120T and 140T, figure 3). It would have

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been obvious to one of ordinary skill in the art at the time of the invention to modify the LCD as taught by **Kuroiwa et al.** because such modification would enhance the display characteristics.

16. With respect to **claim 10, Kuroiwa et al.** (figures 1-3) discloses a second adhesive layer disposed between the reflecting polarizing film (160) and the lower polarizer (140) so as to laminate the reflecting polarizing film with the lower polarizer (see at least paragraph 0042, lines 8-11).

17. With respect to **claim 10, Kaneko** (figures 3-5) discloses a second adhesive layer disposed between the reflecting polarizing film and the lower polarizer so as to laminate the reflecting polarizing film with the lower polarize (10, 12, 19).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lauren Nguyen whose telephone number is (571) 270-1428. The examiner can normally be reached on M-F, 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. N./

Examiner, Art Unit 2871

/Andrew Schechter/
Primary Examiner, Art Unit 2871